COVER AND GREEN MANURE CROP

PRACTICE INTRODUCTION

USDA, Natural Resources Conservation Service - practice code 340

NUTRIENT MANAGEMENT

Growing a crop of grass, small grain or legumes primarily for seasonal protection and soil improvement.

PRACTICE INFORMATION

Cover and green manure crops are grown on cropland, orchards, vineyards, and certain recreation and wildlife areas where seasonal benefits of a cover crop are needed. These crops are usually plowed under or desiccated to accommodate the primary crop being produced on the site.

This practice is used to control erosion, add fertility and organic material to the soil, improve soil tilth, and increase infiltration and aeration of the soil. In orchards, this practice is also used to increase populations of bees for pollination purposes.

In addition, cover and green manure crops have beneficial effects on water quantity and quality. Cover crops have a filtering effect on movement of sediment, pathogens, and dissolved and sediment-attached pollutants.

Additional information including standards and specifications for establishment and management of this practice are on file in the local NRCS Field Office Technical Guide.

The following pages contain the conservation effects expected to occur when this practice is applied. These effects are subjective and somewhat dependent on variables such as climate, terrain, soil, etc. Users are cautioned that these effects are estimates that may or may not apply to a specific site.

CONSERVATION PRACTICE PHYSICAL EFFECT WORKSHEET

NOTE: *recorded in Microsoft word 6.0 - use tabs to change cells/fields*

STATE	Iowa	FIELD OFFICE		DATE	12/5/96

PRACTICE: 340 Cover and Green Manure Crop	NOTES:
RESOURCE: SOIL **RESOURCE CONCERN: EROSION**	**Help Message: Click on form field for choice lists. Tab key to move around. "N/A" is the default.**
RESOURCE INDICATORS	**PHYSICAL EFFECTS**
SHEET AND RILL	significant reduction in sheet and rill erosion
WIND	significant reduction in wind erosion
EPHEMERAL GULLY	significant reduction in ephemeral gully erosion
CLASSIC GULLY	significant reduction in classic gully erosion
STREAMBANK	N/A
IRRIGATION INDUCED	significant reduction in irrigation induced erosio
SOIL MASS MOVEMENT	situational concerning soil mass movement
ROADBANK/CONSTRUCTION	N/A
OTHER	
RESOURCE CONCERN: **SOIL CONDITION**	
SOIL TILTH	significant improvement in soil tilth
SOIL COMPACTION	significant reduction in soil compaction
SOIL CONTAMINATION	
• SALTS	moderate reduction in soil salinity
• ORGANICS	moderate decrease in organic contaminates
• FERTILIZERS	moderate reduction in contaminates from fertilizer
• PESTICIDES	moderate reduction in pesticide contam./soil
• OTHER	
DEPOSITION/DAMAGE	
• ONSITE	significant reduction/onsite deposition damage
• OFFSITE	significant decrease/offsite deposition damage
DEPOSITION/SAFETY	
• ONSITE	significantly improve onsite safety/deposition
• OFFSITE	sign. improve offsite safety hazard/deposition
OTHER	
RESOURCE: **WATER** RESOURCE CONCERN: **WATER QUANTITY**	
SEEPS	slight increase in seepage hazard
RUNOFF/FLOODING	sign. decrease in runoff/flooding
EXCESS SUBSURFACE WATER	moderate reduction in excess subsurface water
INADEQUATE OUTLETS	significant improvement in H20 outlet concern
WATER MGT. IRRIGATION	
• SURFACE	slight improvement in irrigation efficiency
• SPRINKLER	significant improvement in irrigation efficiency
WATER MGT. NON-IRRIGATED	significant improvement in moisture use
RESTRICTED FLOW CAPACITY (drainage)	
• ONSITE	moderate improvement in surface drainage
• OFFSITE	N/A
RESTRICTED STORAGE	sign. reduction in sedimentation of H20 storage
OTHER	

RESOURCE: **WATER** RESOURCE CONCERN**: WATER QUALITY**	
RESOURCE INDICATORS	**PHYSICAL EFFECTS**
GROUNDWATER CONTAMINANTS	
• PESTICIDES	slight reduction GWater contam./pesticides
• NUTRIENTS AND ORGANICS	slight poten. decrease/GWater contam./nutr,organ.
• SALINITY	insignificant
• HEAVY METALS	insignificant
• PATHOGENS	moderate poten. decrease/GWater contam./pathegens
• OTHER	
SURFACE WATER CONTAMINANTS	
• PESTICIDES	slight reduction in SWater contam./pesticides
• NUTRIENTS AND ORGANICS	slight reduction in SWater contam./nutr.,organics
• SUSPENDED SEDIMENTS	moderate reduction in SWater contam./susp. sedi.
• LOW DISSOLVED OXYGEN	insignificant
• SALINITY	slight reduction in SWater contam./salinity
• HEAVY METALS	slight reduction in SWater contam./heavy metals
• WATER TEMPERATURE	insignificant
• PATHOGENS	insignificant
AQUATIC HABITAT SUITABILITY	significant improvement in Aqua. Hab. Suit.
OTHER	
RESOURCE: **AIR** RESOURCE CONCERN: **AIR QUALITY**	
AIRBORNE SEDIMENT AND SMOKE PARTICLES	
• ONSITE SAFETY	moder. decrease in airborn sed.&smoke part./safety
• OFFSITE SAFETY	moder. decrease in airborn sed.&smoke part./safe
• ONSITE STRUCT. PROBLEMS	moder. decrease in struct.problems/dust and smoke
• OFFSITE STRUCT. PROBLEMS	moder. decrease in structural problems/dust&smoke
• ONSITE HEALTH	insignificant
• OFFSITE HEALTH	slight improvement in offsite health
AIRBORNE SEDIMENT CAUSING CONVEYANCE PROBLEMS	moder. decrease in airborn sediment/convey. prob.
AIRBORNE CHEMICAL DRIFT	N/A
AIRBORNE ODORS	N/A
FUNGI, MOLDS, AND POLLEN	insignificant
OTHER	
RESOURCE CONCERN: **AIR CONDITION**	
AIR TEMPERATURE	slight improvement in air condition/temperature
AIR MOVEMENT (windbreak effect)	slight improvement in air condition/ air movement
HUMIDITY	slight inprovement in air condition/ humidity
OTHER	

RESOURCE: **PLANT** RESOURCE CONCERN: **SUITABILITY**	
RESOURCE INDICATORS	**PHYSICAL EFFECTS**
SITE ADAPTATION	slight improvement in plant suitability/site adapt
PLANT USE	slight improvement in plant suit. for intended use
OTHER	
RESOURCE CONCERN: **CONDITION**	
PRODUCTIVITY	moder. improvement in plant cond./ productivity
HEALTH, VIGOR, SURVIVAL	moder. improvement in plant health,vigor,survival
OTHER	
RESOURCE CONCERN: **MANAGEMENT**	
ESTAB., GROWTH, HARVEST	moder. improvement in plant estab.,growth,harvest
NUTRIENT MANAGEMENT	moder. improvement in plant nutrient management
PESTS	moder. improvement in plant pest management
THREAT/ENDANGERED PLANTS	situational
OTHER	
RESOURCE: **ANIMAL** RESOURCE CONCERN: **HABITAT**	
FOOD	moder. improvement in animal habitat/food supply
COVER/SHELTER	sign. improvement in animal habitat/cover,shelter
WATER (QUANTITY & QUALITY)	insignificant
OTHER	
RESOURCE CONCERN: **MANAGEMENT**	
POPULATION BALANCE	slight improvement in animal mgt./pop. balance
THREAT/ENDANGERED ANIMALS	situational
HEALTH	slight improvement in animal mgt./health
OTHER	
RESOURCE: **HUMAN** RESOURCE CONCERNS**: ECONOMIC CONSIDERATIONS**	
PLAN / COST EFFECTIVENESS	moderately cost effective
CLIENT FINANCIAL CONDITION	N/A
MARKETS FOR PRODUCTS	N/A
AVAILABLE LABOR	slight increase in labor requirement
AVAILABLE EQUIPMENT	slight increase in equip. needed

RESOURCE: **HUMAN** RESOURCE CONCERN: **SOCIAL CONSIDERATIONS**	
RESOURCE INDICATORS	**PHYSICAL EFFECTS**
PUBLIC HEALTH AND SAFETY	slight improvement in public health & safety
PRIVATE/PUBLIC VALUES	slight improvement in private/public values
CLIENT CHARACTERISTICS	N/A
RISK TOLERANCE	N/A
TENURE	N/A
OTHER	
RESOURCE CONCERN: **CULTURAL CONSIDERATIONS**	
ABSENCE/PRESENCE OF CULTURAL RESOURCES	situational regarding cultural resources
SIGNIFICANCE OF CULTURAL RESOURCES	situational regarding cultural resources
MITIGATION OF NEGATIVE CULTURAL RES. IMPACTS	situational regarding cultural resources
OTHER	